

## Claims

What is claimed is:

- 5     1. An actuator assembly comprising:  
        a pivot assembly comprising:  
            a first portion configured to be fixed with respect to a base;  
            and  
            a second portion movable with respect to the first portion;  
10             and  
            an actuator mounted to the second portion by a metallurgical bond.
2. The actuator assembly of claim 1 in which the second portion further  
            comprises:  
15             a sleeve; and  
            a flange extending transversely from the sleeve.
3. The actuator assembly of claim 2 in which the actuator touches the  
20             flange.
4. The actuator assembly of claim 3 in which the actuator is metallurgically  
            bonded to the flange.
5. The actuator assembly of claim 3 in which the actuator is metallurgically  
25             bonded to the sleeve.
6. The actuator assembly of claim 1 in which the actuator further defines  
            an aperture sized to receive the second portion.

7. The actuator assembly of claim 1 in which the metallurgical bond is produced by laser welding.

8. The actuator assembly of claim 1 in which the actuator further  
5 comprises an actuator arm and a voice coil support extending in generally opposite directions away from the second portion.

9. A data storage device comprising:  
a base;  
10 a storage medium; and  
the actuator assembly of claim 1, in which the actuator is configured to access the storage medium and the rotator is mounted to the base.

15 10. The data storage device of claim 9, in which the storage medium comprises a rotatable disc.

11. The data storage device of claim 9, in which the storage medium comprises a magnetic medium.

20 12. A method of making an actuator assembly comprising steps of:  
(a) bringing an actuator beam into abutment with a rotating portion of a pivot mechanism; and  
(b) laser welding the actuator beam to the rotating portion.

25 13. The method of claim 12 in which the bringing step (a) further comprises passing a sleeve of the rotating portion through an aperture in the actuator beam.

14. The method of claim 13 in which the bringing step (a) further comprises bringing at least one portion of the actuator beam into abutment with a flange extending from the sleeve.
- 5 15. The method of claim 14 in which the bringing step (a) involves providing from a first direction one of the actuator beam and the sleeve; and in which the welding step (b) involves directing a laser from the first direction.
- 10 16. The method of claim 15 in which the welding step (b) further comprises forming at least one spot-weld joining the actuator beam and the rotator.
17. An actuator assembly comprising:
- 15 a pivot mechanism;
- an actuator arm; and
- means for bonding the actuator arm directly to the rotator.